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DEMARK		Application Number	10/699,009	1
TRANSMITTAL		Filing Date	10/30/2003	_
FORM		First Named Inventor	Tyson J. Mackjust	
		Art Unit	2636	_
(to be used for all correspondence after initial	al filing)	Examiner Name	Van Thanh Trieu	
Total Number of Pages in This Submission	65	Attorney Docket Number	DEI 004 UTL	

FNCLOSURES (Check all that apply)						
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	SIGNATURE OF APPLICAN	T, ATTORNEY, C	OR AGENT			
Firm Name Anatoly S. Weiser, Esq. Signature						
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Printed name Anatoly S. Weiser						
Date June 7, 2006 Reg. No. 43,229						
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CTRACTION to the Concellidated Appropriations Act 2005 (U.B. 4919)		Complete if Known			
FEE TRANSMITTAL FOR FY 2006  Applicant claims small entity status. See 37 CFR 1.27		Application Number	10/699,009		
FEE IRANSMILIAL [		Filing Date	October 30, 2003		
For FY 2006			First Named Inventor	Tyson J. Mackjust	
Applicant claims small antity s	tatus Sa	27 CED 1 27	Examiner Name	Van Thanh TRIEU	
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TOTAL AMOUNT OF PAYMENT	(\$)	250	Attorney Docket No.	DEI 004 UTL	

METHOD OF PAYMEN	METHOD OF PAYMENT (check all that apply)						
		Money Order	None	`	(please identify)	· ———	
Deposit Account				•	_	Directed Elec	ctronics, Inc
For the above-ident	tified deposit	account, the Dire	ctor is hereb	y authorized to	o: (check all th	at apply)	
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FEE CALCULATION (A	All the fees	below are due	upon filin	g or may be	subject to	a surcharge.)	
1. BASIC FILING, SEA							
	FILING	FEES Small Entity	SEARC			ATION FEES	1
Application Type	Fee (\$)	Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fees Paid (\$)
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	
2. EXCESS CLAIM FEES Small Entity							
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listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).							
<u>Total Sheets</u>	Extra Shee	ets <u>Numb</u>	<u>ber of each a</u>	additional 50 o	or fraction the	ereof Fee (	(\$) Fee Paid (\$)
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4. OTHER FEE(S) Non-English Specifi	ication, \$	130 fee (no sma	all entity dis	scount)			Fees Paid (\$)
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SUBMITTED BY			
Signature	Quately S. Wer	Registration No. (Attorney/Agent) 43,229	Telephone 858-720-9431
Name (Print/Type)	Anatoly S. Weiser		Date June 7, 2006

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#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Tyson J. Mackjust et al.

Serial No.: 10/699,009

Filed:

October 30, 2003

For:

MENU-DRIVEN REMOTE

**CONTROL TRANSMITTER** 

Group Art Unit: 2636

Examiner: Van Thanh TRIEU

Attorney File No.: DEI 004 UTL

Final Office Action Mailed On: 1/17/2006

# APPEAL BRIEF TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

This Appeal Brief is responsive to the rejection in Final Office Action mailed on January 17, 2006, in the above-referenced patent application. It is being filed within two months of receipt by the Office of the Notice of Appeal in this case. Therefore, this Appeal Brief is timely and no time extension fee is due. If the Applicants' attorney is mistaken in this regard, Applicants conditionally petition for an extension of time and authorization is hereby granted to charge all required time extension fees to Deposit Account No. 041160. Authorization is also granted to charge to the same Deposit Account the Appeal Brief fee (37 C.F.R. § 41.20(b)(2)) and all other fees necessary to file this Appeal Brief.

CERTIFICATE OF MAILING (37 C.F.R. §1.8a)

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June 7, 2006

06/14/2006 WASFAWI 00000028 041160 10699009

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# I REAL PARTY IN INTEREST

In this Appeal, the real party in interest is Directed Electronics, Inc., a California corporation, having a place of business at One Viper Way, Vista, CA 92081.

# II RELATED APPEALS AND INTERFERENCES

Appellants, Assignee, and the undersigned legal representative do not know of any other appeal, interference, or judicial proceeding that is related to, directly affects, is directly affected by, or has a bearing on the decision of the Board of Patent Appeals and Interferences (the "Board" or the "Board of Appeals") in this Appeal.

# III STATUS OF CLAIMS

The status of claims in the instant application is as follows:

Claims 1 through 67 have been rejected and are pending.

Applicants appeal from the rejection of claims 1-67.

# IV STATUS OF AMENDMENTS

No amendments have been filed after the rejection of claims in the Final Office Action mailed on January 17, 2006.

# V SUMMARY OF CLAIMED SUBJECT MATTER

# A. Independent Claims

# Claim 1

Claim 1 is directed to a remote control transmitter for enabling a user to control remotely a security system. *E.g.*, Specification, par. [0020], [0031], [0044]; Fig. 1, items 10 and 15; Fig. 2, item 300. The security system has a base unit with a communication module. *E.g.*, Specification, par. [0020], [0044], [0045]; Fig. 2, items 205 and 210.

The remote control transmitter includes a processor. *E.g.*, Specification, par. [0058]; Fig. 3, item 301.

The remote control transmitter further includes a display coupled to the processor to display information to the user under control of the processor. *E.g.*, Specification, par. [0058], [0062], [0063]; Fig. 3, item 350; Fig. 9, item 920.

The remote control transmitter also includes first and second input devices whose states are selected by the user. *E.g.*, Specification, par. [0062], [0065]-[0067]; Fig. 3, items 323 and 324; Fig. 9, item 930. The first and second input devices are coupled to the processor to allow the processor to read the user-selectable states of the first and the second input devices. *E.g.*, Specification, par. [0022], [0062], [0071]; Fig. 3, items 323 and 324.

The remote control transmitter further includes a transmitter (transmitting device) coupled to the processor. *E.g.*, Specification, par. [0023], [0064], [0066]; Fig. 3, item 311. The transmitter is capable of sending remote commands to the communication module of the base unit under control of the processor. *E.g.*, Specification, par. [0023], [0064], [0066].

The remote control transmitter also includes a memory module coupled to the processor. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 303, 304, and 305. The memory module stores code executed by the processor. *E.g.*, Specification, par. [0022], [0058]. Under control of the code, the processor displays to the user various menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device. *E.g.*, Specification, par. [0022], [0023], [0065], [0066], [0073]; Fig. 5, steps 507, 525; Fig. 6, steps 607, 615, 621, 627, 637.

#### Claim 31

Claim 31 is directed to a remote control security system installed in a vehicle. *E.g.*, Specification, par. [0020], [0031], [0044]; Fig. 2, item 200. The security system includes a base unit and a remote control transmitter enabling a user to operate the base unit. *E.g.*, Specification, par. [0020], [0044], [0045]; Fig. 2, items 290 and 205.

The base unit includes a base controller, security sensors coupled to the base controller, and a communication module. *E.g.*, Specification, par. [0045]; Fig. 2, items 230, 215, 217, 219, 210.

The remote control transmitter includes a processor. *E.g.*, Specification, par. [0058]; Fig. 3, item 301.

The remote control transmitter further includes a display coupled to the processor to display information to the user under control of the processor. *E.g.*, Specification, par. [0022], [0058], [0062], [0063]; Fig. 3, item 350; Fig. 9, item 920.

The remote control transmitter further includes first and second input devices coupled to the processor to allow the processor to read states of the first and second input devices; the states of the first and second input devices are user-selectable. *E.g.*, Specification, par. [0022], [0062], [0065]-[0067], [0071]; Fig. 3, items 323 and 324; Fig. 9, item 930.

The remote control transmitter further includes a transmitter coupled to the processor. *E.g.*, Specification, par. [0023], [0064], [0066]; Fig. 3, item 311. The transmitter is capable of sending

remote commands to the communication module of the base unit under control of the processor. *E.g.*, Specification, par. [0023], [0064], [0066].

The remote control transmitter also includes a memory module storing code. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 304 and 305. The memory module is coupled to the processor to allow the processor to execute the code. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 304 and 305. Under control of the code, the processor displays to the user various menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device. *E.g.*, Specification, par. [0022], [0023], [0065]; [0066]; [0073]; Fig. 5, steps 507, 525; Fig. 6, steps 607, 615, 621, 627, 637.

#### Claim 45

Claim 45 is directed to a remote controller for enabling a user to control a security system installed in a vehicle. *E.g.*, Specification, par. [0020], [0031], [0044]; Fig. 1, items 10 and 15; Fig. 2, item 200. The security system includes a base unit with a communication module. *E.g.*, Specification, par. [0020], [0044], [0045]; Fig. 2, items 205 and 210.

The remote controller includes means for processing data. *E.g.*, Specification, par. [0058]; Fig. 3, items 301/331.

The remote controller further includes means for displaying information to the user under control of the means for processing. *E.g.*, Specification, par. [0058], [0062], [0063]; Fig. 3, item 350; Fig. 9, item 920; Fig. 10, item 1020; Fig. 11, item 1120; Fig. 12, item 1230 (display); Fig. 13, item 1320.

The remote controller further includes first and second input means; each of the first and second input means is configured to assume at least two states under control of the user. *E.g.*, Specification, par. [0062], [0065]-[0067], [00180], [00185], [00186], [00202], [00203]; Fig. 3, items 323 and 324; Fig. 9, item 930; Fig. 10, item 1030; Fig. 11, item 1130; Fig. 12, item 1230 (scroll wheel); Fig. 13, item 1330. The first and second input means are each coupled to the processing means to allow the processing means to read the states of the first and second input means. *E.g.*, Specification, par. [0022], [0062], [0071]; Fig. 3, items 323, 324.

The remote controller further includes a transmitter coupled to the processing means. *E.g.*, Specification, par. [0023], [0064], [0066]; Fig. 3, item 311; Fig. 13, item(s) 1370/1360. The transmitter is capable of sending remote commands over an RF link to the communication module of the base unit under control of the processing means. *E.g.*, Specification, par. [0023], [0064], [0066].

The remote controller also includes memory means. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 303, 304, 305; Fig. 13, item 1348. The memory means is coupled to the processing means and stores the code executed by the processing means. *E.g.*, Specification, par. [0022], [0058]. Under control of the code, the processing means displays to the user various menu items on the

display means, allows the user to scroll among the menu items to point to one of the menu items using the first input means, and allows the user to select the menu item that is pointed to by using the second input means. *E.g.*, Specification, par. [0022], [0023], [0065], [0066], [0073]; Fig. 5, steps 507, 525; Fig. 6, steps 607, 615, 621, 627, 637.

## Claim 60

Claim 60 is directed to a method of operating a remote controller to control a remote controlled system over a wireless link. *E.g.*, Specification, par. [0020], [0021], [0023], [0060], [0061], [0066], [0073], [0081]. The method includes holding the remote controller in one hand. *E.g.*, Specification, par. [0024], [0026], [00180], [00185], [00186], [00203]. The method further includes rotating a scroll wheel with an internal push-to-activate switch with the thumb of the hand to cause the remote controller to display menu items. *E.g.*, Specification, par. [0066], [00180]. The method also includes depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel to select a menu item and transmit a remote command associated with the selected menu item to the remote controlled system. *E.g.*, Specification, par. [0067], [0073], [0081]; Fig. 9, item 930; Fig. 10, item 1030; Fig. 11, item 1130; Fig. 12, item 1230 (scroll wheel).

Figures 9, 10, 11, and 12 show scroll wheels 930, 1030, 1130, and 1230 slightly protruding in a radial direction from the outer shells 910, 1010, 1110, and 1210, while the text describes pushing the scroll wheel and the push-to-activate switch.

#### Claim 62

Claim 62 is directed to a menu-driven remote control for operating a controlled system over a wireless link. *E.g.*, Specification, par. [0041], [00203]-[00206]; Fig. 13, item 1300. The remote control includes a hand-held general-purpose computing device. *E.g.*, Specification, par. [0027], [0041], [00203]; Fig. 13, item 1310. The remote control also includes a wireless communication module. *E.g.*, Specification, par. [00203]; Fig. 13, item 1360.

The hand-held general-purpose computing device includes a first interface section. *E.g.*, Specification, par. [00203]; Fig. 13, item 1340.

The hand-held general-purpose computing device further includes a manual input portion. E.g., Specification, par. [00203]; Fig. 13, item 1330.

The hand-held general-purpose computing device further includes a memory module. *E.g.*, Specification, par. [00203]; Fig. 13, item 1348.

The hand-held general-purpose computing device further includes a graphical display. *E.g.*, Specification, par. [00203]; Fig. 13, item 1320.

The hand-held general-purpose computing device also includes a controller coupled to the first interface section, the manual input portion, the memory module, and the graphical display. *E.g.*, Specification, par. [00203]-[00206]; Fig. 13, item 1345. The controller is configured to execute instruction code. *E.g.*, Specification, par. [00206].

The wireless communication module includes a second interface section. *E.g.*, Specification, par. [00204]; Fig. 13, item 1385.

The wireless communication module further includes a transmitter coupled to the second interface section. *E.g.*, Specification, par. [00204]-[00206]; Fig. 13, item 1370. The second interface section is coupled to the first interface section through a digital bus. *E.g.*, Specification, par. [00204], [00205]; Fig. 13, item 1380. The transmitter is capable of sending a plurality of remote commands to the controlled system over the wireless link. *E.g.*, Specification, par. [00205]-[00207]. The remote commands instruct the controlled system to perform various operations. *E.g.*, Specification, par. [0023], [00207].

The controller under control of the instruction code displays to the user on the graphical display various menu items of a plurality of menu items. *E.g.*, Specification, par. [0027], [00206], [00207]. Each menu item of a first subset of the plurality of menu items is associated with at least one remote command of the plurality of remote commands. *E.g.*, Specification, par. [0023], [0027], [00178], [00184], [00202], [00206], [00207].

The controller under control of the instruction code enables the user to scroll among the menu items to point to and select one of the menu items using the manual input portion. *E.g.*, Specification, par. [0027], [00205]-[00207].

The controller under control of the instruction code communicates with the transmitter via the first interface section, the digital bus, and the second interface section, to direct the transmitter to send remote commands associated with the menu items selected by the user to the controlled system. *E.g.*, Specification, par. [0023], [0027], [00204]-[00207]; Fig. 13, items 1340, 1380, 1385.

### Claim 64

Claim 64 is directed to a remote control security and entertainment system installed in a vehicle. *E.g.*, Specification, par. [0020], [0044], [0061]; Fig. 2, item 200. The system includes a base unit. *E.g.*, Specification, par. [0020], [0044], [0045]; Fig. 2, item 205. The system also includes a remote controller enabling a user to operate the base unit. *E.g.*, Specification, par. [0044]; Fig. 2, item 290.

The base unit includes a base controller. *E.g.*, Specification, par. [0045]; Fig. 2, item 230. The base unit further includes security sensors coupled to the base controller. *E.g.*, Specification, par. [0045]; Fig. 2, items 215, 217, 219. The base unit further includes a video entertainment module with a plurality of functions. *E.g.*, Specification, par. [0061]. The base unit further includes a communication module. *E.g.*, Specification, par. [0045]; Fig. 2, item 210.

The remote controller includes a processor. E.g., Specification, par. [0058]; Fig. 3, item 301.

The remote controller further includes a display coupled to the processor to display information to the user under control of the processor. *E.g.*, Specification, par. [0058], [0062], [0063]; Fig. 3, item 350; Fig. 9, item 920.

The remote controller further includes first and second input devices coupled to the processor to allow the processor to read states of the first and second input devices; the states of the first and second input devices are selected by the user. *E.g.*, Specification, par. [0022], [0062], [0065]-[0067], [0071]; Fig. 3, items 323 and 324; Fig. 9, item 930.

The remote controller further includes a transmitter coupled to the processor. *E.g.*, Specification, par. [0023], [0064], [0066]; Fig. 3, item 311. The transmitter is capable of sending remote commands to the communication module of the base unit under control of the processor. *E.g.*, Specification, par. [0023], [0064], [0066].

The remote controller further includes a memory module coupled to the processor. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 304 and 305. The memory module stores code executed by the processor. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 304 and 305.

The remote controller also includes an input port capable of receiving the code executed by the processor, which the processor reads and stores in the memory module. *E.g.*, Specification, par. [0028], [0059]-[0061]; Fig. 3, item 395.

Under control of the code the processor displays to the user a plurality of menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device. *E.g.*, Specification, par. [0022], [0023], [0065], [0066], [0073]; Fig. 5, steps 507, 525;

Fig. 6, step 607. 615, 621, 627, 637. At least one of the menu items allows the user to select a function of the video entertainment module. *E.g.*, Specification, par. [0061].

## Claim 65

Claim 65 is directed to a remote control security and positioning system installed in a vehicle. *E.g.*, Specification, par. [0020], [0044], [0061]. The system includes a base unit. *E.g.*, Specification, par. [0020], [0044], [0045]; Fig. 2, item 205. The system further includes a remote controller enabling a user to operate the base unit. *E.g.*, Specification, par. [0044]; Fig. 2, item 290.

The base unit includes a base controller. *E.g.*, Specification, par. [0045]; Fig. 2, item 230. The base unit further includes security sensors coupled to the base controller. *E.g.*, Specification, par. [0045]; Fig. 2, items 215, 217, 219. The base unit further includes a global positioning module with a plurality of functions. *E.g.*, Specification, par. [0061]. The base unit also includes a communication module. *E.g.*, Specification, par. [0045]; Fig. 2, item 210.

The remote controller includes a processor. E.g., Specification, par. [0058]; Fig. 3, item 301.

The remote controller further includes a display coupled to the processor to display information to the user under control of the processor. *E.g.*, Specification, par. [0058], [0062], [0063]; Fig. 3, item 350; Fig. 9, item 920.

The remote controller further includes first and second input devices coupled to the processor to allow the processor to read states of the first and second input devices; the states of the first and second input devices are selected by the user. *E.g.*, Specification, par. [0022], [0062], [0065]-[0067], [0071]; Fig. 3, items 323 and 324; Fig. 9, item 930.

The remote controller further includes a transmitter coupled to the processor. *E.g.*, Specification, par. [0023], [0064], [0066]; Fig. 3, item 311. The transmitter is capable of sending remote commands to the communication module of the base unit under control of the processor. *E.g.*, Specification, par. [0023], [0064], [0066].

The remote controller further includes a memory module coupled to the processor. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 304 and 305. The memory module stores code executed by the processor. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 304 and 305.

The remote controller also includes an input port capable of receiving the code executed by the processor, which the processor reads and stores in the memory module. *E.g.*, Specification, par. [0028], [0059]-[0061]; Fig. 3, item 395.

Under control of the code, the processor displays to the user a plurality of menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device. *E.g.*, Specification, par. [0022], [0023], [0065], [0066], [0073]; Fig. 5, steps 507, 525;

Fig. 6, step 607. 615, 621, 627, 637. At least one of the menu items allows the user to select a function of the global positioning module. *E.g.*, Specification, par. [0061].

# VI CONCISE STATEMENT OF THE GROUNDS OF REJECTION

- 1. Claims 1-23, 25, 26, 28-42, 44-55, and 57-67 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Clise *et al.*, U.S. Patent Number 5,797,091 ("Clise" hereinafter) in view of Goldenberg *et al.*, U.S. Patent Number 6,636,197 ("Goldenberg" hereinafter).
- 2. Claims 24, 27, 43, and 56 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Clise and Goldenberg and further in view of Issa *et al.*, U.S. Patent Number 5,783,989 ("Issa" hereinafter).

# VII <u>ARGUMENT</u>

## A. Rejection of Independent Claims 1

The Final Office Action rejected claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Clise and Goldenberg. To facilitate discussion, claim 1 is set forth below:

1. (Original) A remote control transmitter for enabling a user to control remotely a security system, the security system having a base unit with a communication module, the remote control transmitter comprising:

a processor;

a display coupled to the processor to display information to the user under control of the processor;

a first input device coupled to the processor to allow the processor to read state of the first input device, the state of the first input device being selected by the user;

a second input device coupled to the processor to allow the processor to read state of the second input device, the state of the second input device being selected by the user;

a transmitter coupled to the processor, the transmitter being capable of sending remote commands to the communication module of the base unit under control of the processor; and

a memory module coupled to the processor, the memory module storing code executed by the processor;

wherein the processor under control of the code displays to the user various menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device.

As can be seen, independent claim 1 is directed to a remote control transmitter for enabling a user to control remotely a security system having a base unit. The transmitter of the remote control is capable of sending remote control commands to the communication module of the base unit. Clise does not disclose such transmitter.

In rejecting claim 1, the Final Office Action asserted (at page 3) that Clise discloses a "transmitter ... capable of sending remote commands to the communication module of the base unit" in Figures 1 and 2; at column 2, lines 8-10, and at column 8, lines 21-57. Clise does not disclose a base unit in either Figure 1 or Figure 2. In the portion of column 2 cited in the Final Office Action, Clise states that "[t]he user selects a particular one of the data entries, and the transmitter transmits the corresponding position data to the other entity." Clise, col. 2, lines 8-10. The "other entity" mentioned in the quoted text appears to be "a communications center, a portable communications facility, another personal communicator, or the like." Clise, col. 1, 49-52. Here, Clise neither discloses nor suggests that the "other entity" is a communication module of a base unit of a security system.

In the cited portion of column 8, Clise's disclosure reads as follows:

The position data generated by the position location circuit 42 is transmitted by the transmitter 44 within the personal communicator 10. There are numerous possible forms of transmission that can be used by the personal communicator 10. In a preferred embodiment, the personal communicator 10 can be linked to the other entity 22 via a conventional "packet data communications link." The term packet data communications link refers to numerous types of conventional radio communication. Such forms include cellular digital packet data (CDPD), such as systems provided by McCaw Cellular Communications of Delaware, and radio packet data systems such as RAM Mobile Data of Woodbridge, New Jersey, and ARDIS of Lincolnshire, Illinois, narrow-band personalized communications system

(PCS), such as provided by SkyTel of Jackson, Mississippi, specialized mobile radio (SMR) or enhanced SMR, such as provided by Nextel of Philadelphia. For example, cellular data systems are becoming widespread throughout the world. In a preferred embodiment, the personal communicator 10 utilizes cellular data technology to communicate with the other entity 22 using cellular digital packet data (CDPD) to communicate with the other entity. In this embodiment, the transmitter 44 is a CDPD transmitter, while the receiver 46 (see FIG. 2) is a CDPD receiver. The operation of cellular data communications is well understood and will not be discussed in detail herein. If the transmitter 44 and receiver 46 are cellular data components, the radio tower 20 (see FIG. 1) is part of the cellular data system. The other entity 22 is linked to the cellular data system. Thus, the personal communicator 20 is in communication with the other entity 22 via a cellular data link.

Alternatively, the personal communicator 10 can communicate with the other entity 22 using an analog data link, such as amateur radio, citizen's band, very high frequency (VHF), ultrahigh frequency (UHF), or the like. These forms of analog communication are well known in the art and need not be described herein.

Clise, col. 8, lines 21-57. Once again, the cited text contains neither disclosure nor suggestion of a communication module of a base unit of a security system.

Furthermore, the undersigned attorney has reviewed Clise, but has not found in other parts of that document any mention or suggestion that the communicator 10 sends remote control commands to a communication module of a base unit of a security system.

It appears that in rejecting claim 1 (and other claims), the Final Office Action equated the base station of the security system recited in the claims with "a private response center 22, public response center 26 including private roadside automobile assistance, department of transportation incident response and emergency response" purportedly disclosed in Clise. See the Final Office Action at page 4. But the concept of a base unit of a security system is not the same as a response center.

In the present context, the expression security system means "an electrical device that sets off an alarm when someone tries to break in." Dictionary.com, available online at http://dictionary.reference.com. This definition is consistent with both (1) the ordinary understanding of the expression "security system," and (2) the use of this expression throughout the present application and in the patent documents incorporated by reference in the present application. In contrast, Clise teaches that "private response centers are conventionally used to monitor intrusion detection systems, fire alarms, and the like." Clise, col. 3, lines 11-13. In other words, the private response centers described in Clise monitor security systems. The private response centers themselves are not security systems. Similarly, response centers 26 disclosed in Clise are entities "such as the police, fire department, or ambulance." Clise, col. 3, lines 27-28. Therefore, Clise's response center is not a base unit of a security system. Clise does not disclose or suggest that the personal communicator is a remote control transmitter for remotely controlling a security system.

In fact, it appears that the Final Office Action recognized Clise's failure to teach or suggest a transmitter capable of communications with a base unit of a security system. *See* the Final Office Action at 3-4.<sup>3</sup> To fill this gap in Clise's disclosure, the Final Office Action sought to combine Clise with Goldenberg, citing Goldenberg's disclosure of "a control panel 12 for a remote electronic device for selectively controlling various automobile systems including . . . security or alarm

A security system may perform other functions, and in particular security-related functions, such as disabling a vehicle when an alarm is detected.

The Final Office Action stated (at pages 3-4) that "Clise et al fails to disclose the pre-amble that a remote control transmitter for enabling a user to control remotely a security system, the security system having a base unit with a communication module."

system." Final Office Action at 4. The Final Office Action failed to show that the prior art references provide appropriate motivation to combine Clise with Goldenberg.

The Patent and Trademark Office has the burden of making a *prima facie* case of obviousness under 35 U.S.C. § 103. *E.g.*, *In re Mayne*, 104 F.3d 1339, 1342 (Fed. Cir. 1997); MPEP § 2142. There are three basic requirements for establishing a *prima facie* case of obviousness. MPEP § 2143. First, the combination of prior art references must teach or suggest all the claim limitations. *Id.* Second, there must be a reasonable expectation of success. *Id.* Third, there also "must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings." *Id.* "Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the Applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991). Here, the references fail to provide a proper motivation for combining. Furthermore, there appears to be no reasonable expectation of success in the asserted combination.

As contended in the Final Office Action, the motivation for combining Clise with Goldenberg is "to substitute the remote control security of Goldenberg et al for the handheld communicator of Clise et al since the handheld communicator can be used within a vehicle and to provide security assurance to vehicle's driver or user through vehicle alarm system and/or vehicle road assistance." Final Office Action at 4 (emphasis added). The Final Office Action does not explain why a remote controller would be needed "within a vehicle" to control the vehicle's security

system. It appears that "within a vehicle" there is little need for a remote controller because the security system controls are presumably installed within the vehicle.

Still further, Clise's device is a "portable personal communicator." *See, e.g.*, Clise, col. 1, lines 49-50. It "is contained within a housing 40 sized to fit easily in one hand of the user. The housing 40 is typically about the size of a conventional paging device." Clise, col. 3, lines 53-56. Goldenberg's knob and display, however, appear rather bulky. Goldenberg, Figure 1. Consider also the number and types of components of the knob shown in Goldenberg's Figure 2. The knob, for example, includes "an actuator 84, such as a DC motor." Goldenberg, col. 7, line 54. Thus, it appears that Goldenberg's knob, intended to provide haptic feedback, would not be easily adapted to fit in a housing "typically the size of a conventional pager," as taught by Clise. Consequently, there appears to be no reasonable expectation of success in the combination of Clise and Goldenberg.

At least for these reasons, Applicants respectfully submit that the Final Office Action has not made a *prima facie* case of obviousness of claim 1. Claim 1 is therefore patentable over Clise and Goldbenberg.

# B. Rejection of Independent Claim 31

Independent claim 31 is similar to claim 1 and was rejected using the same grounds and reasoning as were applied to claim 1. Clise and Goldenberg do not render claim 31 unpatentable at least for the same reasons as discussed above in relation to claim 1.

#### C. Rejection of Independent Claim 45

Claim 45 is similar to claim 1, but is cast using several means-plus-function expressions, as sanctioned by 35 U.S.C. § 112, sixth paragraph. This claim was also rejected using the same grounds and reasoning as were applied to claim 1. Clise and Goldenberg do not render this claim unpatentable at least for the same reasons as discussed above in relation to claim 1.

# D. Rejection of Independent Claim 60

Independent claim 60 is directed to a method of operating a remote controller to control a remote controlled system over a wireless link. The method includes holding the remote controller in one hand, rotating a scroll wheel with an internal push-to-activate switch with the thumb of the same hand to display menu items, and depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel to select a menu item and transmit a remote command associated with the selected menu item to the remote controlled system.

The Final Office Action acknowledged (at page 5) that Clise "fails to disclose the first input device comprises a scroll wheel with an internal push-to-activate switch operable by depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel and releasing the scroll wheel." The Final Office Action sought to combine Clise with Goldenberg to overcome this admitted deficiency in Clise's disclosure. According to the Final Office Action (at page 5),

Goldenberg suggests a "scroll control knob/wheel 26." In Goldenberg, however, the numeral 26 designates a knob, not a scroll wheel. See, for example, Goldenberg, Figure 1; id., column 5, lines 6-9. A knob is not the same as a scroll wheel.

One dictionary defines a *knob*, in the relevant part, as a "rounded lump or protuberance, esp. at the end or on the surface of a thing." OXFORD UNIVERSITY PRESS, THE NEW SHORTER OXFORD *ENGLISH DICTIONARY* (CD-ROM ed. 1996); *see also* Merriam-Webster OnLine, available online at http://www.m-w.com/dictionary (a knob is "a rounded protuberance: LUMP," "a small rounded ornament or handle"). Goldenberg's knob 26 appears to be such a conventional knob. Goldenberg, Fig. 1. In contrast, a *scroll wheel* in the computer context is "a hard plastic or rubbery disc on a computer mouse that is perpendicular to the mouse surface." Wikepedia Encyclopedia, available online at http://en.wikipedia.org/wiki/Scroll\_wheel. A scroll wheel is a disc, not a knob.

Moreover, Goldenberg apparently does not disclose or suggest that the knob 26 may be rotated by the thumb of the same hand that is holding the controller. Even if Goldenberg's controller that includes the knob 26 could be made to fit in one hand, it does not follow that the knob would necessarily be operable by the thumb of the hand holding the controller. Indeed, the Final Office Action did not even assert that the references disclose this limitation.

At least for these reasons, Applicants respectfully submit that the Final Office Action has not made a *prima facie* case of obviousness of independent claim 60, and that claim 60 is patentable over Clise and Goldenberg.

Note that the claims do not limit the scroll wheel to any particular material composition, such as plastic or

### E. Rejection of Claims 62 and 66

The Final Office Action rejected claim 62 under 35 U.S.C. § 103(a) as being unpatentable over Clise and Goldenberg. For convenience of discussion, independent claim 62 is set forth below:

62. (Original) A menu-driven remote control for operating a controlled system over a wireless link, the remote control comprising:

a hand-held general-purpose computing device comprising:

- a first interface section,
- a manual input portion,
- a memory module,
- a graphical display, and

a controller coupled to the first interface section, the manual input portion, the memory module, and the graphical display, the controller executing instruction code; and

a wireless communication module comprising a second interface section and a transmitter coupled to the second interface section, the second interface section being coupled to the first interface section through a digital bus, the transmitter being capable of sending a plurality of remote commands to the controlled system over the wireless link, the remote commands instructing the controlled system to perform various operations;

#### wherein:

the controller under control of the instruction code displays, on the graphical display, to the user, various menu items of a plurality of menu items;

each menu item of a first subset of the plurality of menu items is associated with at least one remote command of the plurality of remote commands;

the controller under control of the instruction code enables the user to scroll among the menu items to point to and select one of the menu items using the manual input portion; and

the controller under control of the instruction code communicates with the transmitter via the first interface section, the digital bus, and the second interface section, to direct the transmitter to send remote commands associated with the menu items selected by the user to the controlled system.

Claim 62 thus recites "a hand-held general-purpose computing device" configured in a certain way. The Final Office Action asserted that "the hand-held general purpose computing device is met by the combination of the remote control of Goldenberg et al that includes a local microprocessor 22, other microprocessor 224, input 220, memory 206 with calculation instruction, and a display 14, see Figs. 1 and 3, col. 4, lines 3-66, col. 10, lines 40-67 and col. 11 lines 1-67)." Final Office Action at 15-16. These elements, however, do not necessarily make up a general-purpose computing device, such as a personal digital assistant (PDA).

Goldenberg describes a <u>special purpose device</u>, that is, a device configured to perform the functions specifically described in that document. In Figures 1 and 3, in the text cited in the Final Office Action, or elsewhere within that reference, there appears to be no teaching or suggestion of the control panel 12 being <u>a general-purpose computing device</u>, such as a PDA. Goldenberg apparently lacks any mention of the microprocessors 22/224 being configured to provide <u>general purpose</u> functions, such as PDA functions. Goldenberg fails to disclose a menu-driven remote control that includes a hand-held general-purpose computing device, as recited in claim 62.

Clise teaches, among other things, that

the personal communicator 10 can be easily adapted to operate with existing communications devices. For example, the transmitter and receiver portions (not

shown) of a radio telephone or cellular telephone can be used as the transmitter 44 and receiver 46. The remaining elements, such as the position location circuit 42, button 12, display 16, sound generator 50, microprocessor controller 52, memory 54, real time clock 56, I/O port 58 are incorporated into the personal communicator 10 for use with the existing communications device. The battery 62 can supply power to the personal communicator 10. Alternatively, the existing communications device can provide power to the personal communicator 10 in a conventional manner. Thus, the personal communicator 10 can be added on to existing communications devices to reduce the number of devices that an individual must carry with him.

Clise, col. 8, line 60 through col. 9, line 9 (emphasis added). Even assuming that the telephone is a "hand-held general purpose computing device," only the transmitter and receiver portions of the telephone are used in the communicator. For example, the display of Clise's telephone apparently is not used as part of the remote control. Compare this structure with that recited in claim 62.

In accordance with claim 62, the wireless communication portion is an element separate from the general purpose computing device. In Clise, the transmitter and receiver of the telephone (which is presumably the "hand-held general purpose computing device") are used with the communicator. According to Clise, the telephone provides only the transmitter and receiver for the communicator; according to claim 62, the hand-held general-purpose computing device provides elements other than the transmitter and receive, while the transmitter and receiver are provided by the wireless communication module. The functions of Clise's presumed hand-held general-purpose device are thus not the same as those specified in claim 62 as being performed by the hand-held general-purpose device.

Recall also that Clise's communicator does not communicate with a base unit of a security system; instead, Clise's communicator apparently communicates with response centers.

At least for these reasons Applicants respectfully submit that the Final Office Action has not

made a *prima facie* case of obviousness of independent claim 62, and that claim 62 is patentable over Clise and Goldenberg.

#### F. Rejection of Claim 64

Independent claim 64 is directed to a remote control security and entertainment system installed in a vehicle. The claimed system includes a base unit with security sensors and a video entertainment module, and a remote controller enabling a user to operate the base unit. The reasoning given in the Final Office Action in support of the rejection of this claim reads in its entirety as follows: "Regarding claim 64, all the claimed subject matters are discussed between Clise et al and Goldenberg et al in respect to claim 1 above." Final Office action, at 16.

As noted above in relation to claim 1, Clise and Goldenberg fail to provide a proper motivation for combining these references, and there appears to be no reasonable expectation of success in the asserted combination.

Equally important, the original claim 64 recites, *inter alia*, "a base unit comprising . . . a video entertainment module with a plurality of functions." (Underlining added for emphasis.) The processor of the remote controller of the system "displays to the user a plurality of menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device, at least one of the menu items allowing the user to select a function of the video

entertainment module." Neither Clise nor Goldenberg discloses a base unit of a security system with a video entertainment module, as claimed.

Claim 64 also recites "an input port capable of receiving the code executed by the processor."

It appears that neither of the references discloses or suggests such input port.

In the context of rejecting dependent claim 29, the Final Office Action stated that one of the references teaches a data port 58 capable of receiving the code executed by the processor. Final Office Action, at 11. Applicants understand that the specific reference adverted to is Clise.

While Clise does disclose a port 58, Clise apparently does not disclose that the code executed by the processor is received through this port. In one place, Clise states that "[a]n optional input/output (I/O) port 58 allows the personal communicator 10 to be coupled to an external device such as a computer (not shown). The I/O port 58 can be a serial port, a parallel port, a network connector port, telephone interface, or the like." Clise, col. 4, lines 9-14. In another place, Clise discloses that "[d]ata can also be downloaded into the phone book storage area 84 using the I/O port 58." Clise, col. 7, lines 3-5. In still another place, Clise discloses that the port 58 can be "incorporated into the personal communicator 10 for use with the existing communications device." Clise, col. 9, lines 1-3. The undersigned attorney has not been able to identify a specific disclosure of downloading the *code executed by the processor* through the port 58. It appears that Clise lacks such disclosure.

At least for these reasons Applicants respectfully submit that the Final Office Action has not made a *prima facie* case of obviousness of claim 64, and that Clise and Goldenberg do not render claim 64 unpatentable.

# G. Rejection of Claim 65

Independent claim 65 is directed to a remote control security and positioning system installed in a vehicle. The claimed system includes a base unit with security sensors and a global positioning module, and a remote controller enabling a user to operate the base unit. The reasoning given in the Final Office Action in support of the rejection of this claim reads in its entirety as follows: "Regarding claim 65, all the claimed subject matters are discussed between Clise et al and Goldenberg et al in respect to claim 1 above." Final Office action, at 16.

As noted above in relation to claim 1, Clise and Goldenberg fail to provide a proper motivation for combining these references, and there appears to be no reasonable expectation of success in the asserted combination.

Note also the recitation in claim 65 of a global positioning module <u>in the base unit</u>. While Clise does disclose a global positioning system (GPS), Clise's GPS is installed in the personal communicator, <u>not in a base unit of a security system</u>. According to Clise, "[t]he personal communicator 10 thus provides several alternative techniques for generating position data." Clise, col. 7, lines 63-64; *see* also Clise, Figure 4 (showing a GPS receiver in the personal communicator) and Figure 5 (showing the communicator in communication with GPS satellites); *id.*, col. 5, lines 51-

53 ("The position data is generated by the position location circuit 42 . . . within the housing 40 of the personal communicator 10."). Thus, Clise does not disclose a base unit with a positioning module, as recited in claim 65.

At least for these reasons Applicants respectfully submit that the Final Office Action has not made a *prima facie* case of obviousness of claim 65, and that claim 65 is patentable over Clise and Goldenberg.

# H. Rejection of Dependent Claims 3, 26, and 33

Dependent claims 3, 26, and 33 recite limitations relating to scroll wheel. As discussed above in relation to independent claim 60, Clise and Goldenberg do not disclose a scroll wheel. At least for this reason, Applicants respectfully submit that dependent claims 3, 26, and 33 are separately patentable over the references.

## I. Rejection of Dependent Claims 4, 47, and 61

In accordance with dependent claims 4, 47, and 61, menu items are displayed *one at a time*. The Final Office Action failed to address this limitation.

It appears that neither Clise nor Goldenberg discloses or suggests displaying menu items one at a time. Clise, for example, shows displays with multiple menu items in figures 1, 3, and 5.

Goldenberg also shows <u>multiple</u> menu items displayed in Figures 1 and 4E; see also Goldenberg at column 3, lines 47-48, and at column 5, lines 53-56. At least for these reasons Applicants respectfully submit that the Final Office Action has not made a *prima facie* case of obviousness of claims 4, 47, and 61, and that claims 4, 47, and 61 are separately patentable over Clise and Goldenberg.

## J. Rejection of Dependent Claims 5 and 48

Claim 5 recites the limitation of "wherein one of the menu items occupies no less than substantially half of the display area capable of displaying menu items." Claim 48 recites a similar limitation. In rejecting these claims, the Final Office Action stated that the limitations in issue here are taught in Figure 3 of Clise.<sup>5</sup>

Figure 3 of Clise shows a display 16. Assuming that the information shown on the display 16 includes menu items, each of the items is smaller than half the display area of the display 16. At least for this reason Applicants respectfully submit that the Final Office Action has not made a *prima* facie case of obviousness of claims 5 and 48, and that claims 5 and 48 are separately patentable over Clise and Goldenberg.

The Final Office Action did not specify whether Figure 3 was from Clise or Goldenberg. Because Goldenberg's Figure 3 does not show a display, it appears clear that Clise – which does show a display 16 – is the reference of interest

### K. Rejection of Dependent Claims 13, 35, and 52

Claims 13, 35, and 52 recite limitations relating to screen inversion. Screen inversion is explained in the specification, for example, as follows:

The display 920 can be inverted by selecting and activating a menu list item that sets an indicator and initiates a software inversion of the displayed menu items. In essence, the information displayed on the screen 920 is flipped bottom-up. When the display 920 is so inverted, the remote controller 900 can be held in the left hand and operated by the left-hand thumb while the items are normally displayed on the screen 920. The remote control 900 is thus easy to use by both right- and left-handed users.

Specification, numbered paragraph [00181].

The Final Office Action (at 7-8) acknowledged that Clise does not disclose screen inversion.

The Final Office Action did not assert that Goldenberg teaches or suggests screen inversion. Official

Notice of screen inversion was also not taken.<sup>6</sup> Instead, the Final Office Action argued that

Clise et al teaches that the screen display area 16 being controlled by the microprocessor controller 52 to display a particular tasks or information from messages, user selections and/or received command data, see Figs. 2 and 3, col. 2, lines 18-21. Therefore, it would have been obvious to one skill in the art to recognize that the display area is functionally equivalent to the claimed inversion because it is designed to display information data received from the memory and/or remotely in the forms of either analog and digital signals, which are converted for displaying on the display to be view by a user.

Final Office Action, at 8. It appears that the Final Office Action in essence argued that adding screen inversion was obvious because, given the microprocessor and the display, it could have been done. This argument directly contradicts well established authority.

here.

Taking Official Notice would have constituted a new ground of rejection, making finality of the action improper.

The plain fact that something could have been done does not make doing it obvious. As the Court of Appeals for the Federal Circuit put it, "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). Here, the cited art not only fails to provide a motivation for adding screen inversion to other elements/steps, but completely fails to teach screen inversion in the first instance.

At least for these reasons Applicants respectfully submit that the Final Office Action has not made a *prima facie* case of obviousness of claims 13, 35, and 52. Therefore, claims 13, 35, and 52 are separately patentable over Clise and Goldenberg.

# L. Rejection of Dependent Claims 15 and 36

According to claims 15 and 36, the scroll wheel is disposed on one of the sidewalls of the outer housing and protrudes from the sidewall. The Final Office Action did not point to any specific portion of the references for disclosure of this limitation. It appears that neither Clise nor Goldenberg discloses or suggests the scroll wheel being disposed on a sidewall of the outer housing and protruding from the sidewall. Goldenberg, for example, shows in Figure 1 a knob (not a scroll wheel) protruding from the upper surface of the device 12, not from a sidewall. At least for these reasons Applicants respectfully submit that the Final Office Action has not made a *prima facie* case

of obviousness of claims 15 and 36, and that claims 15 and 36 are separately patentable over Clise and Goldenberg.

#### M. Rejection of Dependent Claims 16-18, 20, 21, 37-39, and 41

These claims recite various size, weight, and activation pressure range limitations. The Final Office Action failed to point out where these limitations are disclosed in the cited references. In fact, the limitations are neither disclosed nor suggested by the references.

With respect to the selection of pressure needed to activate the internal switch, the Final Office Action asserted (at page 9) that this limitation "reads upon the haptic feedback scroll control knob." If the specific pressure range is disclosed in one of the references, the Final Office Action should have pointed to it. This has not been done. The record does not indicate why a hypothetical person skilled in the art would have been motivated to select the pressure needed to activate the internal switch within the specific range claimed by Applicants.

With respect to the size limitation in claim 17, the Final Office Action asserted that this is "a designed choice . . ., which provides easier and convenience carried by a user." Invocation of "design choice" does not obviate the need to provide sufficient reasoning in support of an obviousness rejection. To make a *prima facie* case of obviousness, the Office should provide reasoning why a specific feature is a "design choice" and therefore obvious. *See In re Chu*, 66 F.3d

292, 36 U.S.P.Q.2d 1089 (Fed. Cir. 1995). Such reasoning has not been provided here.

At least for these reasons, Applicants respectfully submit that a *prima facie* case of obviousness of claims 16-18, 20, 21, 37-39, and 41 has not been made, and that these dependent claims are separately patentable over the references.

#### N. Rejection of Dependent Claim 66

Claim 66 depends from claim 62 and specifies that the hand-held general purpose device comprises a personal digital assistant. The Final Office Action did not point to a teaching of a PDA in the references. It appears that neither Clise nor Goldenberg discloses a PDA as part of a remote controller. At least for these reasons Applicants respectfully submit that the Final Office Action has not made a *prima facie* case of obviousness of claim 66, and that this claim is separately patentable over the references.

#### O. Rejection of Dependent Claim 67

Claim 67 depends from claim 64 and specifies that the security sensors comprise at least a shock sensor, a field disturbance sensor, or a glass break sensor. The Final Office Action did not point to a teaching of such sensors in the references. It appears that neither Clise nor Goldenberg discloses such sensors. At least for these reasons Applicants respectfully submit that the Final Office

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Action has not made a *prima facie* case of obviousness of claim 67, and that this claim is separately patentable over the references.

## VIII CONCLUSION

For the foregoing reasons, Appellants respectfully submit that all pending claims are patentable over the references of record and respectfully requests reversal of the rejections.

Respectfully submitted,

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### **CLAIMS APPENDIX**

The following is a listing of the claims in the application. All claims have been rejected and are involved in this Appeal.

- 1. (Original) A remote control transmitter for enabling a user to control remotely a security system, the security system having a base unit with a communication module, the remote control transmitter comprising:
  - a processor;
- a display coupled to the processor to display information to the user under control of the processor;
- a first input device coupled to the processor to allow the processor to read state of the first input device, the state of the first input device being selected by the user;
- a second input device coupled to the processor to allow the processor to read state of the second input device, the state of the second input device being selected by the user;
- a transmitter coupled to the processor, the transmitter being capable of sending remote commands to the communication module of the base unit under control of the processor; and
- a memory module coupled to the processor, the memory module storing code executed by the processor;

wherein the processor under control of the code displays to the user various menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device.

- 2. (Original) A remote control transmitter in accordance with claim 1, wherein the transmitter sends commands to the communication module of the base unit over a wireless link.
- 3. (Previously Presented) A remote control transmitter in accordance with claim 2, wherein:

the first input device comprises a scroll wheel with an internal push-to-activate switch operable by depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel and releasing the scroll wheel;

the user selects the state of the first input device by rotating the scroll wheel;

the second input device comprises the internal push-to-activate switch of the scroll wheel; and

the user selects the state of the second user device by depressing and releasing the scroll wheel.

- 4. (Original) A remote control transmitter in accordance with claim 3, wherein the display displays the menu items one-at-a-time.
  - 5. (Original) A remote control transmitter in accordance with claim 4, wherein one of the

menu items occupies no less than substantially half of the display area capable of displaying menu items.

- 6. (Original) A remote control transmitter in accordance with claim 3, wherein the remote control transmitter provides feedback to the user when the user scrolls among the menu items.
- 7. (Original) A remote control transmitter in accordance with claim 6, wherein the scroll wheel clicks when it is rotated, providing tactile and audible feedback to the user when the user scrolls among the menu items.
- 8. (Original) A remote control transmitter in accordance with claim 7, wherein the remote control transmitter provides feedback to the user when the user depresses the internal press-to-activate switch of the scroll wheel.
- 9. (Original) A remote control transmitter in accordance with claim 8, wherein the internal press-to-activate switch clicks when the user depresses the internal press-to-activate switch.
- 10. (Original) A remote control transmitter in accordance with claim 7, wherein the transmitter sends the remote commands to the communication module of the base unit over an RF link.

- 11. (Original) A remote control transmitter in accordance with claim 10, wherein each of the menu items corresponds to at least one task of a plurality of tasks, the tasks of the plurality of tasks to be performed by the base unit and the remote control transmitter.
- 12. (Original) A remote control transmitter in accordance with claim 11, wherein each task to be performed by the base unit corresponds to at least one of the remote commands.
  - 13. (Original) A remote control transmitter in accordance with claim 3, wherein:

each of the menu items corresponds to at least one task of a plurality of tasks, the tasks of the plurality of tasks to be performed by the base unit and the remote control transmitter;

each task to be performed by the base unit corresponds to at least one of the remote commands;

the menu items comprise a screen inversion menu item, the plurality of tasks comprises a screen inversion task, the screen inversion menu item corresponds to the screen inversion task; and the code executed by the processor causes the processor to perform the screen inversion task and invert the display when the screen inversion menu item is selected.

- 14. (Original) A remote control transmitter in accordance with claim 13, wherein the security system is a security system installed in a vehicle.
  - 15. (Original) A remote control transmitter in accordance with claim 14, further comprising:

an outer housing for containing the processor, the display, the first and second input devices, the transmitter, and the memory module, the outer housing comprising a top surface, a bottom surface, and sidewalls;

wherein:

the display is disposed on the top surface of the outer housing; and

the scroll wheel is disposed on one of the sidewalls of the outer housing and protrudes from said one of the sidewalls.

16. (Original) A remote control transmitter in accordance with claim 15, wherein the top surface of the outer housing has a longer dimension and a shorter dimension substantially perpendicular to each other, the longer dimension being less than about 6 inches, the shorter dimension being less than about 4 inches.

- 17. (Original) A remote control transmitter in accordance with claim 15, wherein the longest dimension of the top surface of the outer housing is less than about 1.5 inches.
- 18. (Original) A remote control transmitter in accordance with claim 17, wherein the pressure needed to activate the internal switch is between about .15 and .75 ounces.
  - 19. (Original) A remote control transmitter in accordance with claim 14, further comprising: an outer housing for housing the processor, the display, the first and second input devices, the

transmitter, and the memory module, the outer housing comprising a top surface, a bottom surface, and sidewalls;

wherein:

the display is disposed on the top surface of the outer housing; and

the scroll wheel is disposed on the top surface of the outer housing and protrudes from the top surface of the outer housing.

- 20. (Original) A remote control transmitter in accordance with claim 19, wherein the longest dimension of the top surface of the outer housing is less than about 1.5 inches.
- 21. (Original) A remote control transmitter in accordance with claim 20, wherein the pressure needed to activate the internal switch is between about .15 and .75 ounces.
- 22. (Original) A remote control transmitter in accordance with claim 3, further comprising a display driver interposed between the processor and the display.
  - 23. (Original) A remote control transmitter in accordance with claim 3, wherein:

each of the menu items corresponds to at least one task of a plurality of tasks, the tasks of the plurality of tasks to be performed by the base unit and the remote control transmitter;

each task to be performed by the base unit corresponds to at least one of the remote commands; and

at least one of the tasks performed by the base unit is a function-programming task for configuring the base unit.

- 24. (Original) A remote control transmitter in accordance with claim 23, wherein the function-programming task is selected from the list consisting of passive arming, active arming, enabling confirming chirps for arm and disarm state changes, disabling confirming chirps for arm and disarm state changes, turning on ignition locking of doors, and turning off ignition locking of doors.
- 25. (Previously Presented) A remote control transmitter in accordance with claim 2, further comprising a receiver coupled to the processor, the receiver being capable of receiving messages containing information from the communication module of the base unit and providing the messages to the processor, wherein the messages comprise alarm, status, or diagnostic data from the base unit.
- 26. (Previously Presented) A remote control transmitter in accordance with claim 25, wherein:

the first input device comprises a scroll wheel with an internal push-to-activate switch operable by depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel and releasing the scroll wheel;

the user selects the state of the first input device by rotating the scroll wheel;

the second input device comprises the internal push-to-activate switch of the scroll wheel; the user selects the state of the second user device by depressing and releasing the scroll wheel;

the processor causes the display to display at least some information contained in the messages; and

the security system is a security system installed in a vehicle.

- 27. (Original) A remote control transmitter in accordance with claim 26, wherein the information in the messages contains diagnostic data.
- 28. (Original) A remote control transmitter in accordance with claim 26, wherein the information in the messages contains alarm data.
- 29. (Previously Presented) A remote control transmitter in accordance with claim 1, further comprising an input data port capable of receiving the code executed by the processor, wherein the processor reads the code from the input data port and stores the code in the memory module.
- 30. (Previously Presented) A remote control transmitter in accordance with claim 29, wherein the information on the display comprises at least one icon determined by the code read by the processor from the input data port.

31. (Original) A remote control security system installed in a vehicle, the security system comprising:

a base unit comprising a base controller, security sensors coupled to the base controller, and a communication module; and

a remote control transmitter enabling a user to operate the base unit, the remote control transmitter comprising:

a processor;

a display coupled to the processor to display information to the user under control of the processor;

a first input device coupled to the processor to allow the processor to read state of the first input device, the state of the first input device being selected by the user;

a second input device coupled to the processor to allow the processor to read state of the second input device, the state of the second input device being selected by the user;

a transmitter coupled to the processor, the transmitter being capable of sending remote commands to the communication module of the base unit under control of the processor; and

a memory module coupled to the processor, the memory module storing code executed by the processor;

wherein the processor under control of the code displays to the user various menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device.

- 32. (Original) A remote control security system in accordance with claim 31, wherein: the communication module and the transmitter communicate over a wireless link.
- 33. (Previously Presented) A remote control security system in accordance with claim 32, wherein:

the first input device comprises a scroll wheel with an internal push-to-activate switch operable by depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel and releasing the scroll wheel, for enabling the user to select the state of the first input device by rotating the scroll wheel; and

the second input device comprises the internal push-to-activate switch of the scroll wheel for enabling the user to select the state of the second user device by depressing the scroll wheel.

- 34. (Original) A remote control security system in accordance with claim 33, wherein the scroll wheel clicks when it is rotated, thereby providing feedback to the user when the user scrolls among the menu items.
  - 35. (Original) A remote control security system in accordance with claim 33, wherein: each of the menu items corresponds to at least one task of a plurality of tasks, the tasks of the

plurality of tasks to be performed by the base unit and the remote control transmitter;

the menu items comprise a screen inversion menu item, the plurality of tasks comprises a screen inversion task, the screen inversion menu item corresponds to the screen inversion task; and

the code executed by the processor causes the processor to perform the screen inversion task and invert the display when the screen inversion menu item is selected.

36. (Original) A remote control security system in accordance with claim 33, further comprising:

an outer housing for housing the processor, the display, the first and second input devices, the transmitter, and the memory module, the outer housing comprising a top surface, a bottom surface, and sidewalls;

wherein:

the display is disposed on the top surface of the outer housing; and

the scroll wheel is disposed on one of the sidewalls of the outer housing and protrudes from said one of the sidewalls.

37. (Original) A remote control security system in accordance with claim 36, wherein the top surface of the outer housing has a longer axis dimension and a shorter axis dimension substantially perpendicular to each other, the longer axis dimension being less than about 6 inches, the shorter axis dimension being less than about 4 inches.

- 38. (Original) A remote control security system in accordance with claim 37, wherein the longest dimension of the top surface of the outer housing is less than about 1.5 inches.
- 39. (Original) A remote control security system in accordance with claim 38, wherein the pressure needed to activate the internal switch is between about .15 and .75 ounces.
- 40. (Original) A remote control security system in accordance with claim 33, further comprising:

an outer housing for housing the processor, the display, the first and second input devices, the transmitter, and the memory module, the outer housing comprising a top surface, a bottom surface, and sidewalls;

wherein:

the display is disposed on the top surface of the outer housing; and

the scroll wheel is disposed on the top surface of the outer housing and protrudes from the top surface of the outer housing.

- 41. (Original) A remote control security system in accordance with claim 40, wherein the longest dimension of the top surface of the outer housing is less than about 1.5 inches.
  - 42. (Original) A remote control security system in accordance with claim 33, wherein: at least two of the menu items correspond to tasks of a plurality of tasks performed by the

base unit and the remote control transmitter; and

at least one of the tasks performed by the base unit is a function-programming task for configuring the base unit.

43. (Original) A remote control security system in accordance with claim 42, wherein the function-programming task is selected from the list consisting of passive arming, active arming, enabling confirming chirps for arm and disarm state changes, disabling confirming chirps for arm and disarm state changes, turning on ignition locking of doors, and turning off ignition locking of doors.

44. (Original) A remote control security system in accordance with claim 33, wherein:

the remote control transmitter further comprises a receiver coupled to the processor, the receiver being capable of receiving messages containing information from the communication module of the base unit and providing the messages to the processor;

the processor causes the display to display at least some information contained in the messages; and

the information in the messages contains alarm data.

45. (Original) A remote controller for enabling a user to control a security system installed in a vehicle, the security system comprising a base unit with a communication module, the remote controller comprising:

means for processing data;

means for displaying information to the user under control of the means for processing;

first input means for assuming at least two states under control of the user, the first input means being coupled to the processing means to allow the processing means to read the states of the first input means;

second input means for assuming at least two states under control of the user, the second input means being coupled to the processing means to allow the processing means to read the states of the second input means;

a transmitter coupled to the processing means, the transmitter being capable of sending remote commands over an RF link to the communication module of the base unit under control of the processing means; and

memory means coupled to the processing means, the memory means storing code executed by the processing means;

wherein the processing means under control of the code displays to the user various menu items on the display means, allows the user to scroll among the menu items to point to one of the menu items using the first input means, and allows the user to select the menu item that is pointed to by using the second input means.

46. (Previously Presented) A remote controller in accordance with claim 45, wherein: the first input means comprises a scroll wheel;

the user selects the state of the first input means by rotating the scroll wheel;

the second input means comprises an internal push-to-activate switch of the scroll wheel; the user selects the state of the second input means by depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel and releasing the scroll wheel.

- 47. (Original) A remote controller in accordance with claim 46, wherein the display means displays the menu items one at a time.
- 48. (Original) A remote controller in accordance with claim 47, wherein one of the menu items occupies no less than substantially half of the display area of the display means capable of displaying menu items.
- 49. (Original) A remote controller in accordance with claim 46, further comprising means for providing tactile feedback to the user when the user scrolls among the menu items.
- 50. (Original) A remote controller in accordance with claim 46, further comprising means for providing audible feedback to the user when the user scrolls among the menu items.
- 51. (Original) A remote controller in accordance with claim 46, further comprising means for providing feedback to the user when the user depresses the internal press-to-activate switch of the scroll wheel.

52. (Original) A remote controller in accordance with claim 46, wherein:

each of the menu items corresponds to at least one task of a plurality of tasks, the tasks of the plurality of tasks to be performed by the base unit and the remote controller;

the menu items comprise a screen inversion menu item, the plurality of tasks comprising a screen inversion task, the screen inversion menu item corresponding to the screen inversion task; and the code executed by the processing means causes the processing means to perform the screen inversion task and invert the display means when the screen inversion menu item is selected.

- 53. (Original) A remote controller in accordance with claim 47, further comprising an outer shell means for housing the processing means, the display means, the first and second input means, the transmitter, and the memory means, the outer shell means being for enabling the user to hold and operate the remote control with one hand.
- 54. (Original) A remote controller in accordance with claim 53, wherein the pressure needed to activate the internal switch is between about .15 and .75 ounces.
- 55. (Original) A remote controller in accordance with claim 52, wherein at least one of the tasks performed by the base unit is a function-programming task for configuring the base unit.
- 56. (Original) A remote controller in accordance with claim 55, wherein the function-programming task is selected from the list consisting of passive arming, active arming, enabling

confirming chirps for arm and disarm state changes, disabling confirming chirps for arm and disarm state changes, turning on ignition locking of doors, and turning off ignition locking of doors.

- 57. (Original) A remote controller in accordance with claim 46, further comprising a receiver coupled to the processing means, the receiver being capable of receiving messages containing information from the communication module of the base unit and providing the messages to the processing means.
- 58. (Original) A remote controller in accordance with claim 57, wherein the processing means causes the display means to display at least some information contained in at least one of the messages.
- 59. (Original) A remote controller in accordance with claim 58, wherein the information in said at least one of the messages contains alarm data.
- 60. (Previously Presented) A method of operating a remote controller to control a remote controlled system over a wireless link, the method comprising:

holding the remote controller in one hand;

rotating a scroll wheel with an internal push-to-activate switch with the thumb of said hand to cause the remote controller to display menu items;

depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll

wheel to select a menu item and transmit a remote command associated with the selected menu item to the remote controlled system.

- 61. (Original) A method in accordance with claim 60, wherein:
- the remote controlled system comprises an automotive security system; and said rotating step comprises the step of causing the remote controller to display menu items one-at-a-time.
- 62. (Original) A menu-driven remote control for operating a controlled system over a wireless link, the remote control comprising:
  - a hand-held general-purpose computing device comprising:
    - a first interface section,
    - a manual input portion,
    - a memory module,
    - a graphical display, and
- a controller coupled to the first interface section, the manual input portion, the memory module, and the graphical display, the controller executing instruction code; and a wireless communication module comprising a second interface section and a transmitter coupled to the second interface section, the second interface section being coupled to the first interface section through a digital bus, the transmitter being capable of sending a plurality of remote commands to the controlled system over the wireless link, the remote commands instructing the

controlled system to perform various operations;

wherein:

the controller under control of the instruction code displays, on the graphical display, to the user, various menu items of a plurality of menu items;

each menu item of a first subset of the plurality of menu items is associated with at least one remote command of the plurality of remote commands;

the controller under control of the instruction code enables the user to scroll among the menu items to point to and select one of the menu items using the manual input portion; and

the controller under control of the instruction code communicates with the transmitter via the first interface section, the digital bus, and the second interface section, to direct the transmitter to send remote commands associated with the menu items selected by the user to the controlled system.

63. (Original) A menu-driven remote control according to claim 62, wherein:

the hand-held general-purpose computing device further comprises an electrical power source for operating the hand-held general purpose computing device and for providing electrical power to the wireless communication module.

64. (Original) A remote control security and entertainment system installed in a vehicle, the system comprising:

a base unit comprising a base controller, security sensors coupled to the base controller, a video entertainment module with a plurality of functions, and a communication module; and

a remote controller enabling a user to operate the base unit, the remote controller comprising:

a processor;

a display coupled to the processor to display information to the user under control of the processor;

a first input device coupled to the processor to allow the processor to read state of the first input device, the state of the first input device being selected by the user;

a second input device coupled to the processor to allow the processor to read state of the second input device, the state of the second input device being selected by the user;

a transmitter coupled to the processor, the transmitter being capable of sending remote commands to the communication module of the base unit under control of the processor;

a memory module coupled to the processor, the memory module storing code executed by the processor; and

an input port capable of receiving the code executed by the processor; wherein:

the processor reads the code from the input port and stores the code in the memory module; the processor under control of the code displays to the user a plurality of menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device, at least one of the menu items allowing the user to select a function of the video entertainment module.

65. (Original) A remote control security and positioning system installed in a vehicle, the system comprising:

a base unit comprising a base controller, security sensors coupled to the base controller, a global positioning module with a plurality of functions, and a communication module; and a remote controller enabling a user to operate the base unit, the remote controller comprising: a processor;

a display coupled to the processor to display information to the user under control of the processor;

a first input device coupled to the processor to allow the processor to read state of the first input device, the state of the first input device being selected by the user;

a second input device coupled to the processor to allow the processor to read state of the second input device, the state of the second input device being selected by the user;

a transmitter coupled to the processor, the transmitter being capable of sending remote commands to the communication module of the base unit under control of the processor;

a memory module coupled to the processor, the memory module storing code executed by the processor; and

an input port capable of receiving the code executed by the processor; wherein:

the processor reads the code from the input port and stores the code in the memory module;

the processor under control of the code displays to the user a plurality of menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device, at least one of the menu items allowing the user to select a function of the global positioning module.

- 66. (Previously Presented) A menu-driven remote control according to claim 62, wherein the hand-held general purpose device comprises a personal digital assistant (PDA).
- 67. (Previously Presented) A remote control security and entertainment system according to claim 64, wherein the security sensors comprise at least a shock sensor, a field disturbance sensor, or a glass break sensor.

# **EVIDENCE APPENDIX**

No evidence has been submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132. No evidence has been entered in the record by the Examiner and relied upon by Appellant in this Appeal.

## **RELATED PROCEEDINGS APPENDIX**

Appellants, Assignee, and the undersigned legal representative do not know of any other appeal, interference, or judicial proceeding that is related to, directly affects, is directly affected by, or has a bearing on the decision of the Board of Patent Appeals and Interferences in this Appeal.